ENVIRONMENTAL ASSESSMENT
AND
BIOLOGICAL EVALUATION

STEVENSVILLE, RAVALLI COUNTY, MONTANA
WATER SYSTEM IMPROVEMENTS

December 2006

US Army Corps
of Engineers®
Seattle District

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1 INTRODUCTION

1.1 BACKGROUND

The town of Stevensville, Montana requested that the Corps of Engineers, Seattle District (Corps) provide assistance for water system improvements. The water system is operated and managed by the Public Works department of the town of Stevensville. The water system has not been substantially or significantly improved since 1977, yet the population of Stevensville increased by 27.2% from 1990 to 2000.

A detailed engineering report performed by Professional Consultants, Inc outlines a three phase project plan to complete water system upgrades (PCI, 2006). The objectives of Phase 1 are to maximize the efficiency of current infrastructure by replacing one well pump and repairing leaky transmission lines and to perform site surveys for infrastructure improvements that will be made in future phases. The objectives of Phase 2 are to improve the water meter system and install a new transmission main line. The objectives of Phase 3 are to replace two more well pumps, construct a new storage tank, improve the distribution system, and de-commission the infiltration system.

Current federal budget restrictions limit the degree of upgrade to include only Phase 1 of the plan. The Corps will provide funding to assist with Phase 1 repairs; only this phase will be included in this analysis. This environmental assessment (EA) is prepared in accordance with the National Environmental Policy Act (NEPA) which requires federal agencies to evaluate environmental effects of proposed federal actions. The biological evaluation (BE) is also included in this document in accordance with the Endangered Species Act (ESA).

1.2 PROJECT PURPOSE AND NEED

The purpose of the proposed project is to repair a degraded water system to ensure acceptable water quality and supply volume for the residents of Stevensville, Montana. This project is driven by the current conditions of the town's water system; the main transmission line has several leaks and the pump in well No.1 is not functioning to capacity. These discrepancies result in the water system being unable to provide enough water supplies to meet peak domestic and fire demands.

The water system is currently out of compliance with the Environmental Protection Agency's (EPA) Long Term Enhanced Surface Water Treatment Rule, which is designed to insure that municipal water systems reduce disease incidence associated with *Cryptosporidium*; the system also does not meet the EPA turbidity standards. This lack of compliance is due to the older design capacity of the sand filtration system that is still in use. In addition, well Nos. 2 and 3 are located in a shallow aquifer, making these water supplies susceptible to point source contamination.

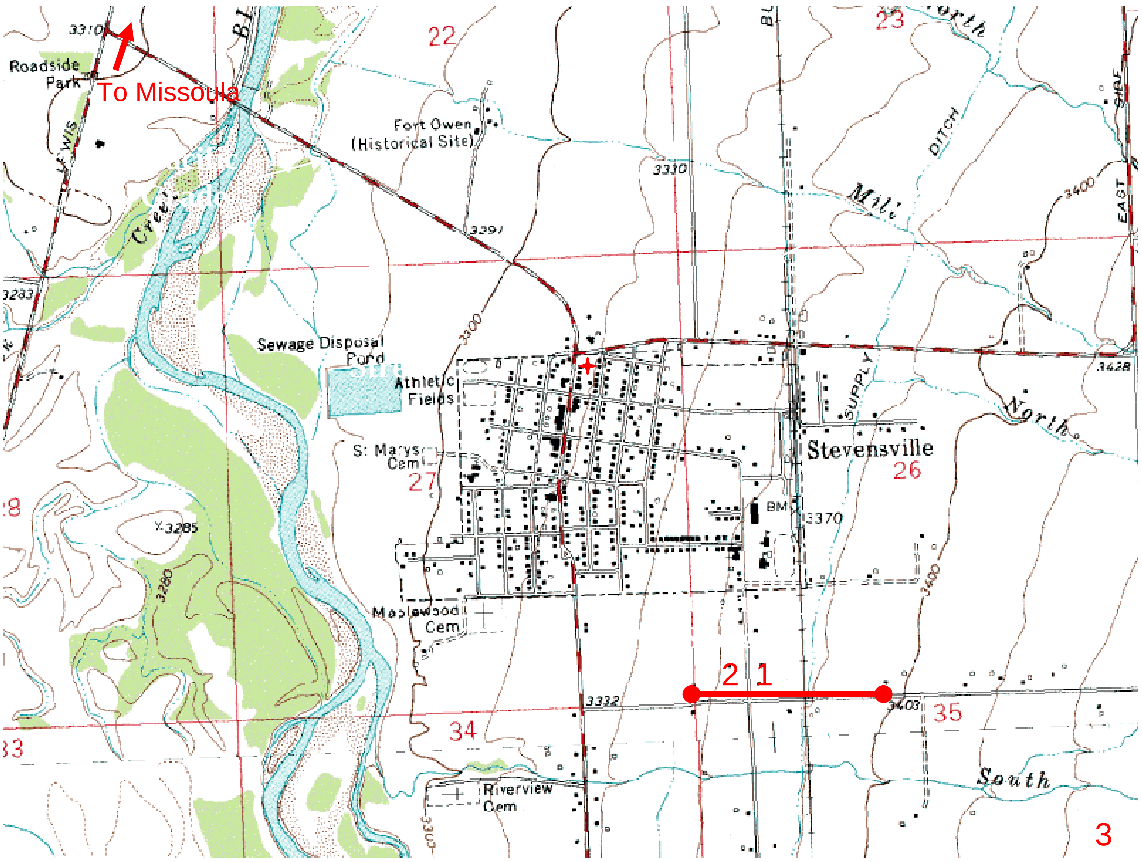
1.3 AUTHORITY

The Rural Nevada and Montana Environmental Infrastructure and Resource Protection and Development Program was authorized by Section 595 of the Water Resources Development Act (WRDA) of 1999 (Public Law 106-53, 113 STAT 383). Section 595 authorizes Federal assistance for projects regarding wastewater treatment and related facilities, water supply and related facilities, environmental restoration, and surface water resource protection and development. The local sponsor for this project is the town of Stevensville, Montana.

1.4 Project and Action Areas

The town of Stevensville is located in the Bitterroot Valley in the northern portion of Ravalli County, approximately 25 miles south of the city of Missoula in western Montana. It is situated on a valley plain at elevation 3370 feet, bounded on the west by the Bitterroot Mountains and on the east by the Sapphire Mountains. The town is situated just east of the Bitterroot River and U.S. Highway 93. The Bitterroot River drainage basin is identified as USGS Hydrologic Unit Code (HUC) 17010205, Bitterroot, Montana, and Montana stream segment 076H.

Figure 1: Stevensville, Montana and surrounding area



The action area encompasses the present town limits and unincorporated county areas to the northeast, east and south. Specifically, well No.1 is located in a small building in a community park on the north side of town near Stevensville Road and Highway 203 (red star in Figure 1). The proposed sites of the new well field are located approximately .5 to 1.5 miles east of the eastern edge of town. The first proposed site is abandoned pasture land designated as public school property (No.1 in Figure 1). The second site is a private pasture located across the street from the school property (No.2 in Figure 1). The third site is another private pasture located approximately ¼ mile away to the east (No.3 in Figure 1). The main line repairs are located under Middle Burnt Fork Road, beginning east of the town limits and running into the center of Stevensville (red line in Figure 1).

Prior to the use of site number 1 as a test well, the Stevensville School Board must agree to trade or sell the necessary land to the Town. In addition, prior to drilling a test well at the school site, a wetland delineation will be performed. The Corps will not participate in drilling a test well at the school property location if wetlands are determined to be present or if real estate issues are not resolved. If wetlands are found, the test well will be drilled at either site No.2 or No.3, both are known upland areas.

2 ALTERNATIVES

2.1 ALTERNATIVE 1 – NO-ACTION

Under the no-action alternative, water system repair and rehabilitation actions would not occur with federal money. Although it is possible that the water repair would occur without the use of federal funds, it is highly unlikely due to the extensive amount of repairs needed and the limited amount of funds available to the town (PCI, 2006).

Current conditions would remain as a result of the no-action alternative; 350,000 gpd (243 gpm) of water would remain "lost" (i.e., water that is accounted for in water production records, but not in wastewater inflow records); the pump in well No. 1 would continue to operate at 64% of rated capacity, a potential supply loss of 150 gpm; and site surveys and testing would not be performed. The no-action alternative would not meet the project purposes or needs.

2.2 ALTERNATIVE 2 – PUMP REHABILITATION, FULL LINE REPLACEMENT, EXISTING STORAGE SITE

Alternative two would address some of the needs of the town regarding supply and transmission and complete the studies for future phases. In 2005, the impeller in the pump in well No. 1 was adjusted, increasing its output from 150 gpm to 270 gpm. Under this alternative, similar rehabilitation of the pumps in well Nos. 2 and 3 would be performed to increase their production up to rated capacity, and thus increase supply to the town. However, these wells are relatively shallow (28' to 30' static water level) and are not protected from contamination in surface waters (PCI, 2006). Protection from contamination is one of the primary needs of the town, thus, the wells must be deepened so that they enter a semi-confined aquifer that improves wellhead protection. This option presents some difficult practical, engineering and logistical problems due to lack of available land space, and so is not considered further.

Transmission of the water supply currently results in 350,000 gpd of "lost water". These losses would be rectified by complete replacement of the existing service and main lines. Some existing lines date back 50 years and are constructed of wood and copper (PCI, 2006). This extensive line replacement was determined to be financially prohibitive and intrusive

Investigative studies regarding future improvements of the water system must be performed in order to meet EPA standards and domestic and fire supply demands. Studies of future storage capabilities would focus on upgrading or replacing the storage tank at the existing site.

However, space limitations at the existing site limit the possibility of constructing a larger tank without removing the existing tank. This would eliminate the ability to store and treat water during construction, and therefore would not be feasible.

2.3 Alternative 3 –Pump replacement, line repair, site surveys (Preferred)

The preferred alternative would address the immediate needs of the town regarding supply, transmission, and studies regarding future needs. To meet some of the immediate domestic and fire supply demands, well No. 1 would be rehabilitated by installing a new pump (rated at the same capacity as the current pump), associated piping, and a new telemetry control system. Currently, well No. 1 is operating at 64% of rated capacity (270 gpm instead of the rated 420 gpm) and workers manually manipulate well operations based on their assessment of town needs, a system that may be inefficient. Well No.1 has a casing drilled to a depth of 460 feet and is not influenced by surface waters or potential surface water contaminants. Implementing this alternative will remove this inefficient way of operating and restore the original pumping capacity of this well.

Rather than full line replacement as described in alternative 2, this alternative will focus on major identified leaks in sections of the transmission line. The main service line is located under the paved Middle Burnt Fork Road, between the water treatment facility and the town. Evidence of water leakage is visible from the surface (i.e., buckled black top) along several sections of this newly paved mile length of road. Construction activities will extend around the repair sites by an approximate 5 feet radius which would include the current paved road and the dirt shoulder. This option would eliminate unnecessary pipe replacement, be economically efficient, and minimize service disruptions.

Investigative studies regarding future improvements of the water system must be performed in order to meet EPA standards and domestic and fire supply demands. Studies regarding future storage improvements will focus on exploration of several new sites to build a new storage tank. New sites, as opposed to replacing the tank at the current site, would enable the town to examine more options regarding the size and operations of a new tank (i.e., gravity fed or booster pump). This part of the project only includes studies; no construction will be performed as part of the storage tank surveys.

Investigative studies will also be performed to determine new well sites that will provide sufficient supply, minimize chance of surface contamination, and allow sufficient pre-treatment contact time. A test well would be dug to a depth of approximately 500 feet at the most preferred site. Aquifer studies that determine the extent of the supply would be performed in conjunction with test well site surveys.

3 Affected Environment and Environmental Effects

The effects of the proposed action are compared against the baseline conditions associated with the no-action alternative. Unless otherwise indicated in the following discussion of environmental effects, the no-action alternative will not affect the physical environment or the socioeconomic features at the project site.

3.1 *NATURAL PHYSICAL ENVIRONMENT*

The surface topography of Stevensville and its surroundings is relatively flat, with an average surface elevation of 3,370 feet MSL. It is surrounded on the west side by the Bitterroot Mountains and on the east by the Sapphire Mountains. The majority of the town is situated on soil classified as Dominic Cobbly Loam, National Resource Conservation Service (NRCS) mapping symbol "Da", on slopes less than 2%. This soil type is described as shallow, gravelly and cobbly, loose sandy soils that occur on low fans and terraces on the east side of the Bitterroot Valley. This soil type is characterized by very dark grayish-brown, coarse, porous surface soils and dark grayish-brown cobbly or gravelly sandy loam subsoils (PCI, 2006).

The climate ranges from a moderately dry summer and autumn to a moderately wet winter and spring. Annual precipitation in Stevensville averages 12.56 inches of rain and 27.3 inches of snow. The average annual high temperature is 58.5°F and the average annual low temperature is 31°F.

The Bitterroot River is the primary surface water body in the area and is located on the western side of town. Flows in the river vary primarily in response to rainfall and snowmelt on the surrounding mountains. They are also regulated by the Painted Rocks Reservoir, located on the West Fork of the Bitterroot River upstream of Conner, Montana. In addition to this base flow, four other major tributary streams (Sleeping Child Creek, Skalkaho Creek, Blodgett Creek and Bear Creek) contribute flows upstream of Stevensville.

Flows from the river and some of the primary tributary streams are diverted into irrigation ditches to support agricultural activities in the valley. The Supply Ditch is the primary irrigation ditch within the project area and runs from south to north in the eastern segment. Two other smaller tributaries of the Bitterroot River are of significance, Mill Creek and North Swamp Creek. Stevensville obtains a substantial portion of its raw water supply indirectly from these two streams by means of a subsurface infiltration system of tile pipe laid parallel to the creeks in fields between the creek beds.

No significant impacts to the natural physical environment are expected as a result of the implementation of the preferred alternative.

3.2 *FISH AND WILDLIFE*

The town and project areas are located in a rural area frequented by a variety of wildlife species. Mammals include Columbian ground squirrel *(Spermophilus columbianus),* deer mouse *(Peromyscus maniculatus)*, and white - tailed deer *(Odocoileus virginianus)*. Bird species include Canada goose (*Branta Canadensis)*, killdeer (*Charadrius vociferous*), and mallard (*Anas platyrhynchos platyrhynchos).* Fish species include Westslope cutthroat (*Oncorhynchus clarki lewisi*), largemouth bass (*Micropterus salmoides salmoides*), and northern pike (*Esox lucius*). In addition, the Lee Metcalf Wildlife Refuge is located within 5 miles of the project site.

No significant impacts to fish or wildlife are expected as a result of the implementation of this project. Drilling of the test well and water line surveys and repairs will generate minor amounts of noise, dust, odors, and impact to vehicular traffic. Use of best management practices will mitigate these impacts. Habitat disruption will occur at the site of the test well as a result of clearing 4 square yards of pasture grasses. Disturbed areas will be replanted with native vegetation.

3.3 THREATENED AND ENDANGERED SPECIES

Four species protected under the Endangered Species Act of 1973, as amended, potentially occur in the project vicinity (Table 1; 16 USC 1531-1544). A list of species potentially affected by the proposed project was obtained from the U.S. Fish and Wildlife Service (USFWS) Montana Ecological Services Field Office (USFWS 2004, 2006).

Table 1: Protected species potentially occurring in the project vicinity

Species	Status	Critical Habitat
Bald Eagle (*Haliaeetus leucocephalus*)	Threatened	None designated
Bull Trout (*Salvelinus confluentus*)	Threatened	None designated in this area.
Canada Lynx (*Lynx canadensis*)	Threatened	None designated in this area.
Gray Wolf (*Canis lupus*)	Endangered/Experimental Non-Essential Population	None designated

3.3.1 Bald Eagle

In Montana, the bald eagle population has clearly increased since listing. In 1995, a survey found 196 viable nesting territories in Montana, placing the state seventh in the lower 48 (behind Florida, Minnesota, Washington, Wisconsin, Michigan, and Oregon) in numbers of breeding bald eagles and eagles produced. This successful protection of the species resulted in the proposed delisting of bald eagle in 1999 (64 FR 36453/36464).

The characteristic features of bald eagle breeding habitat are nest sites, perch trees, and available prey. Bald eagles primarily nest in uneven-aged, multi-storied stands with old-growth components. Factors such as tree height, diameter, tree species, position on the surrounding topography, distance from water, and distance from disturbance also influence nest selection. Snags, trees with exposed lateral branches, or trees with dead tops are often present in nesting territories and are critical to eagle perching, movement to and from the nest, and as points of defense of their territory.

Fish are the primary food source, but bald eagles will also take a variety of birds, mammals, and turtles (both live and as carrion) when fish are not readily available. Food is recognized as the essential habitat requirement affecting winter numbers and distribution of bald eagles. Other wintering habitat considerations are communal night roosts and perches. Generally the largest and tallest stands of trees on slopes with northerly exposures are used for roosting; eagles tend to roost in older trees with broken crowns and open branching (Steenhof, 1978). Critical habitat has not been determined for this species.

Known Occurrences within the Project Area

A nesting site was identified approximately two miles north of the proposed test well site at the public school (Bill Meisner, personnel communication, 2006). There are no trees in the immediate areas of well No. 1, the test well sites, or the water line repairs that are suitable for nesting, perching, or roosting.

Effects of the Action
USFWS recommends limiting activities that occur within line of site of an active nest to a distance greater than ½ mile away and those that occur in wintering and feeding areas be greater than ¼ mile away, (USFWS, 1999). There are no known nests, communal night roosts or perch trees within these distances, so construction activities should not disrupt eagle nesting and rearing of young. Foraging bald eagles may be temporarily displaced by the noise of equipment; however, the expected noise would not be significantly greater than that produced by logging truck traffic in the area.

Determination of Effect
The proposed project will have **no effect** on the bald eagle. This determination is based on the lack of nests, perch trees, and communal night roosts in the immediate vicinity of the proposed project and the lack of disturbance generated by project activities.

3.3.2 Columbia River Bull Trout

Bull trout of the Columbia River distinct population segment (DPS), which includes Kootenai River bull trout, were listed as threatened in 1999 (63 FR 31647). Bull trout are found throughout the Clark Fork, Kootenai, and Saskatchewan River drainages; populations have exhibited a steady, slow decline. No critical habitat is designated in Montana.

Adult bull trout are olive-green to brown with faint pink spots. Bull trout exhibit resident and migratory life-history strategies through much of the current range (Rieman and McIntyre, 1993). Resident bull trout complete their entire life cycle in the tributary (or nearby) streams in which they spawn and rear. Migratory bull trout spawn in tributary streams where juvenile fish rear from one to four years before migrating to either a lake (adfluvial) or river (fluvial), where maturity is reached (Fraley and Shepard, 1989; Goetz, 1994). Water temperature above 15 °C (59 °F) is believed to limit bull trout distribution, which may partially explain the patchy distribution within a watershed (Fraley and Shepard, 1989; Rieman and McIntyre, 1995). Preferred spawning habitat consists of low gradient streams with loose, clean gravel (Fraley and Shepard, 1989) and low water temperatures of 5 to 9 °C (41 to 48 °F) in late summer to early fall (Goetz, 1994).

Known Occurrences within the Project Area
The present distribution of bull trout in the Bitterroot drainage is reduced from historic levels and the migratory life form has nearly disappeared. Bull trout are rare in the Bitterroot River (MBTSG, 1995).

Effects of the Action
The project will have no direct or indirect effect on bull trout. Construction activities are not located near the Bitterroot River, Mill Creek, or North Swamp Creek; therefore, the project will not have any effect on surface waters or water quality. There will be very little ground disturbance with a corresponding small chance for sediment or contaminant loading of storm

water runoff. Best management practices for spill prevention, control, and response will be utilized at all times.

Determination of Effect
The proposed project will have **no effect** on bull trout. This determination is based on the lack of geographic proximity to the Bitterroot River or tributaries and the lack of bull trout in the area.

3.3.3 Canada Lynx

Lynx are documented, historically and currently, throughout the Rocky Mountains of Montana, from the Canadian Border through the Yellowstone area (Ruediger *et al*., 2000). In the western U.S., most lynx occurrences (83%) are associated with Rocky Mountain Conifer Forest, and most (77%) occur within the 1,500-2,000 m (4,920-6,560 feet) elevation zone (McKelvey *et al*., 2000). Lynx habitat is primarily composed of lodgepole pine, subalpine fir, and Engelmann spruce (Aubry *et al*., 2000). In extreme northern Idaho, northeastern Washington, and northwestern Montana, cedar-hemlock habitat types may also be considered primary vegetation. Secondary vegetation including Douglas-fir, grand fir, western larch, and aspen forests, when interspersed within subalpine forests, also contributes to lynx habitat. Lynx seem to prefer to move through continuous forest, and frequently use ridges, saddles, and riparian areas (Koehler, 1990; Staples, 1995). Lynx require cover for stalking and security, and usually do not cross openings wider than 100 meters (Koehler and Brittell, 1990 *in* Montana Fish, Wildlife, and Parks, 2005).

Occurrence within the project area
Lynx radio-collar surveys occurred in three areas approximately 60-85 miles from the project area (Montana Fish, Wildlife, and Parks, 2005). No sightings have been reported in the town or project areas.

Effects of the Action
The project area encompasses developed areas and open pasture lands, habitat characteristics which are not suitable for lynx or their prey. In addition, the town is located approximately 1000 feet beneath the preferred elevation of lynx.

Determination of Effect
This project will have **no effect** on lynx due to their absence in the project area and a lack of suitable habitat and prey.

3.3.4 Gray Wolf

Once exterminated from the lower 48 states, the gray wolf population is increasing in Montana. Gray wolf populations have persisted and expanded in the northern Rocky Mountains since 1986, while reintroduction efforts in Idaho and Yellowstone have further strengthened the population. Wolves occupy areas that have a higher degree of forest cover, low human population density, high elk density, and low sheep density. USFWS analysis indicated that relatively large tracts of suitable habitat remain unoccupied which suggests that wolf populations will likely continue to increase in the region. Due to positive recovery efforts, management responsibility was transferred from federal to Montana State control. As of 2005, 126 wolves in 19 packs, occupy northwestern Montana (USFWS *et al*., 2006).

Occurrences within the Project Area
The Brooks Creek Wolf Recovery Area extends from the project area to the west until the Idaho Border. Four wolves are associated with the Brooks Creek pack which was first recognized in 2005 (USFWS *et al*., 2006). A grey wolf sighting was noted approximately six miles east of town in the foothills of the Sapphire Mountains (Bill Meisner, pers comm, 2006).

Effects of the Action
The project area encompasses developed areas and open pasture lands, habitat features which are not suitable for gray wolves. Wolves are crepuscular and nocturnal animals; all project work will occur during daylight hours.

Determination of Effect
This project will have **no effect** on gray wolves due to their absence and the lack of suitable habitat in the project area.

3.4 ESSENTIAL FISH HABITAT

Essential fish habitat is not designated in Montana.

3.5 CULTURAL RESOURCES

The Salish Indians resided in the Bitterroot valley, flanked on either side by the Bitterroot and Sapphire Mountains. European interaction began with the Lewis and Clark Corps of Discovery expedition, 1805-1806, who traded the Salish for fresh horses. Early growth and development of the Bitterroot valley continued with the establishment of the Mission in 1841, the earliest mission in what is now Montana; Father Pierre Desmet came in response to tribal requests for "Black Robes". The development of Fort Owen, one of the earliest trading posts, soon followed. Stevensville was named after Isaac Ingle Stevens, authorized by President Lincoln in 1864. General Stevens had been in charge of military posts, operations, and Indian affairs in the Northwest Territory.

The nature of this project does not meet the definition of an undertaking sufficient to invoke Section 106 of the National Historic Preservation Act (NHPA), as there is little potential to affect historic properties. If any cultural materials are inadvertently discovered during the project implementation, work will cease, and the Montana State Historical Preservation Office (SHPO) will be consulted.

3.6 WATER QUALITY

The Bitterroot River at the Stevensville wastewater treatment plant is classified “B-1” (ARM 17.30.607(1) (a)). Class B-1 waters are to be maintained suitable for drinking, culinary and food processing purposes, after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply (ARM 17.30.623(1)). Montana Department of Environmental Quality (MDEQ) considers the water from Mill and North Swamp Creeks to be “under the direct influence of surface water”, and therefore subject to Surface Water Treatment Requirements (SWTR).

The project will not result in a discharge of fill and all work will be conducted in upland areas; therefore, no Federal 404 permit is required. Consequently, no Section 401 permit, as administered by the State of Montana, is required. Although the precise fate of the "lost water" is unclear, this water may mix with the high groundwater levels and filter, via the coarse gravel alluviums, into the Bitterroot River. The repair of identified leaks in the transmission line will prevent some of the "lost water" volume from continuing to leak into the surrounding physical environment and joining the groundwaters.

3.7 AIR QUALITY AND NOISE

In 2006, the Air Quality Index (AQI) rated the air quality in the Bitterroot Valley as "good" 95% of the time (EPA, 2006). The area is in attainment or is unclassified for all pollutants (MDEQ, 2006). Times of significant air pollution are associated with wildfires during the dry season and wood burning stoves in the winter. Additional air pollution is caused by truck and automobile traffic that use Highway 93. Emissions from the limited equipment that will be used for the project will be minor and temporary in duration. There will be no significant impact on air quality as a result of the project implementation.

Noise generated during construction of the proposed project will be minor and temporary in duration. Equipment used during construction will have minor and localized effects on ambient noise levels.

3.8 PUBLIC INFRASTRUCTURE AND LAND USE

The town of Stevensville encompasses approximately 0.5 square miles of land area. The 1,800 residents reside within these town limits, on outlying farms, and on outlying large acre properties. In the valley, the land is irrigated and primarily used for agriculture. Timber harvesting is the dominant land use in the surrounding mountains. Highway 93 runs in a north-south direction, approximately one mile west of town. The Montana Rail Link runs in a north-south direction on the eastern edge of town. No negative impacts to land use or public infrastructure are anticipated as a result of this project.

3.9 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE

Hazardous, toxic, and radioactive wastes are not known to be present at the project location.

3.10 RECREATION

Fishing and hunting are favorite recreational activities of local residents. Camping, hiking, rock-climbing, boating, skiing, and snowmobiling are among the many activities that can be enjoyed in the nearby Bitterroot National Forest.

No negative impacts to recreation are anticipated as a result of the project construction. There will be minor and temporary interruptions to the normal traffic flow on Middle Burnt Fork Road to access the water line.

4 INTERRELATED AND INTERDEPENDENT EFFECTS

The rehabilitation of the pump in well No.1 and repair of leaks in the main water lines will restore the water system to its design capacity. Investigative studies regarding future storage and supply options will focus on updating the water system to accommodate for past growth and projected normal growth for the area. Additional development, expected to the north and east of the current town limits, would be a result of planned growth for the region, and not as a result of this project. All proposed growth areas are outside of the 100 year floodplain of the Bitterroot River.

5 CUMULATIVE IMPACTS

Cumulative effects are defined in 50 CFR §402.02 as "those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation." The Corps knows of no other future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this evaluation.

The scope of this project encompasses Phase I of a three phase plan to update the water system. Future federal actions, including the second and third phase of the water system improvements, will be reviewed under separate consultation processes and are not considered cumulative effects as defined above.

6 CONSERVATION MEASURES

Best management practices will be followed during the water system improvements. Specifically, the following conservation measures will be implemented to ensure impacts will be at a minimum before, during, and after completion of the proposed project:

- All construction activities will be within the footprint of the existing water system.
- Best management practices will be enforced to ensure no unnecessary damage to the environment will occur, including monitoring for spills and quickly executing their clean up.
- Best management practices will be used to control airborne dust from any excavation (if necessary) that occurs as part of the main water line repairs. This will include the use of a watering truck if necessary.

7 ENVIRONMENTAL COMPLIANCE

LAWS AND REGULATIONS	ISSUES ADDRESSED	CONSISTENCY
National Environmental Policy Act (NEPA), 42 U.S.C. 4321 et seq.	Requires all federal agencies to consider the environmental effects of their actions and to seek to minimize negative impacts	Environmental assessment routed in this document.
Clean Water Acts (CWA), 33 U.S.C. 1251 et seq.; Section 404	Requires federal agencies to protect waters of the United States. Disallows the placement of dredged or fill material into waters (and excavation) unless it can be demonstrated there are no reasonable alternatives.	N/A - No discharge of fill into waters of the U.S. associated with this project.
Clean Water Act, Section 401	Requires federal agencies to comply with state water quality standards.	N/A - No 404 permit required; therefore, no 401 water quality certification required for the project.
Endangered Species Act,	Requires federal agencies to protect listed	Consistent - The

16 U.S.C. 1531 et seq.	species and consult with US Fish & Wildlife or NOAA Fisheries regarding the proposed action.	proposed project will have no effect on listed species. No further consultation is necessary.
National Historic Preservation Act, 16 U.S.C. 461	Requires federal agencies to identify and protect cultural and historic resources.	Consistent - not an undertaking with a potential to affect historic properties.
Executive Order 11988, Floodplain Management, 24 May 1977	Requires federal agencies to consider how their activities may encourage future development in floodplains.	Consistent –Water system repairs restore the system to original design capacity. This project does not encourage additional development.
Executive Order 11990, Protection of Wetlands	Requires federal agencies to protect wetland habitats.	Consistent. No wetlands will be impacted as a result of the project.
Rivers and Harbors Act, 33 U.S.C. 401, 403, 407; Section 10	Requires federal agencies to protect and preserve the navigability of navigable waters	N/A – project does not impact navigable waters.
Clean Air Act, 42 U.S.C 7401 et seq.	Requires states to develop plans, State implementation plans (SIP), for eliminating or reducing the severity and number of violations of National Ambient Air Quality Standards (NAAQS) while achieving expeditious attainment of the NAAQS. The Act also requires Federal actions to conform to the appropriate SIP.	Consistent -The area is in attainment or is unclassified for all pollutants (MDEQ, 2006). Emissions of pollutants from the limited equipment used will be *de minimus*.
Executive Order 12898, Environmental Justice	Requires federal agencies to consider and address environmental justice by identifying and assessing whether agency actions may have disproportionately high and adverse human health or environmental effects on minority or low-income populations.	Consistent - Human health effects on minority or low-income populations in local area are enhanced by increased availability to a healthy water supply.

8 CONCLUSION

Based on the above analysis, the water system improvement project in Stevensville, Montana is not a major Federal action significantly affecting the quality of the human environment, and therefore does not require preparation of an environmental impact statement.

References

Aubry, K. B., G. Koehler, and J. R. Squires. 2000. Ecology of Canada lynx in southern boreal forests. Pages 373-396 In Ruggiero, L. F., K. B. Aubry, S. W. Buskirk, G. M. Koehler, C. J. Krebs, K. S. McKelvey, and J. R. Squires. (Tech. Eds.) Ecology and conservation of lynx in the United States. Univ. Press of Colorado. Boulder, Colorado. 480pp.

Environmental Protection Agency. 2006. Available at: http://www.epa.gov/cgi-bin/broker?_service=airdata&_program=progs.webprogs.aqiday.scl&geotype=co&geocode=30081&begyr=2006&begmo=1&nummo=12&chtype=d&mapsize=zsc&reqtype=viewmap

Fraley, J.J., and B.B. Shepard. 1989. Life history, ecology, and subpopulation status of migratory bull trout (*Salvelinus confluentus*) in the Flathead Lake and River system, Montana. Northwest Science 63:133-143.

Goetz, F.A. 1994. Distribution and ecology of bull trout (*Salvelinus confluentus*) in the Cascade Mountains. Thesis, Oregon State University, Corvallis, Oregon.

Koehler, G. M. 1990. Population and habitat characteristics of lynx and snowshoe hares in north central Washington. Can. J. Zool. 68:845-851.

Koehler, G. M. and J. D. Brittell. 1990. Managing spruce-fir habitat for lynx and snowshoe hares. Journal of Forestry, October 1990.

McKelvey, K. S., K. B. Aubry, and Y. K. Ortega. 2000. History and distribution of lynx in the contiguous United States. Pages 207-264 *In* Ruggiero, L.F., K. B. Aubry, S. W. Buskirk, G. M. Koehler, C. J. Krebs, K. S. McKelvey, and J. R. Squires. (Tech. Eds.). Ecology and conservation of lynx in the United States. Univ. Press of Colorado. Boulder, Colorado. 480pp.

Montana Bull Trout Scientific Group (MBTSG). 1995. Bitterroot River drainage bull trout status report. Prepared for the Montana Bull Trout Restoration Team, Montana Fish, Wildlife, and Parks, Helena, Montana.

Montana Department of Environmental Quality (MDEQ). 2006. Available at: http://www.deq.state.mt.us/AirQuality/Planning/AirNonattainment.asp.

Montana Fish, Wildlife, and Parks. 2005. Available at: http://fwp.state.mt.us/fieldguide/detail_AMAJH03010.aspx.

Professional Consultants Incorporated (PCI). 2006. Preliminary Engineering Report: Town of Stevensville Water System Improvements. Missoula, Montana. 74pp.

Rieman, B.E., and J.D. McIntyre. 1993. Demographic and habitat requirements for conservation of bull trout. General Technical Report INT-302. U.S. Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah.

Rieman, B.E. and J.D. McIntyre. 1995. Occurrence of bull trout in naturally fragmented habitat patches of varied size. Transactions of the American Fisheries Society. Vol. 124 (3): 285-296.

Ruediger, Bill, Jim Claar, Steve Gniadek, Bryon Holt, Lyle Lewis, Steve Mighton, Bob Naney, Gary Patton, Tony Rinaldi, Joel Trick, Anne Vandehey, Fred Wahl, Nancy Warren, Dick Wenger, and Al Williamson. 2000. Canada lynx conservation assessment and strategy. USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service. Missoula, Montana.

Staples, W. R. 1995. Lynx and coyote diet and habitat relationships during a low hare population on the Kenai Peninsula, Alaska. M.S. Thesis, Univ. of Alaska, Fairbanks.

Steenhof, K. 1978. Management of Wintering Bald Eagles. U.S. Fish and Wildlife Service

U.S. Fish and Wildlife Service (USFWS). 1999. Section 7 consultations on the bald eagle. Proceedings of the biological assessment preparation and review workshop, U.S. Fish and Wildlife Service, Western Washington Office, March 1999.

U.S. Fish and Wildlife Service (USFWS), Montana Ecological Services Field Office. September 14, 2006. Available at: http://montanafieldoffice.fws.gov/Endangered_Species/Listed_Species/countylist.pdf.

U.S. Fish and Wildlife Service (USFWS), Nez Perce Tribe, National Park Service, Montana Fish, Wildlife & Parks, Idaho Fish and Game, and USDA Wildlife Services. 2006. Rocky mountain wolf recovery 2005 annual report. C.A. Sime and E. E. Bangs (eds.), USFWS Ecological Services, Helena, Montana. 130pp.